Northgate Stakeholders Group

Thornton Creek
Water Quality Channel

30% Design Review Summary

Seattle Public Utilities

January 24, 2006

Seattle Public Utilities

Presentation Overview

- Background and Introductions (Miranda)
- Design Team Recommendations (Tom)
- Cost Review (Randy, Olympic Associates)
- Q&A (Miranda with Design Team)

Background

2004

- Feasibility and Evaluation
- Stakeholder Advice
- City Council approval
- Purchase Property

2005

- Completed Engineering and 30% Design

30% Design Review

Oct 18th – Northgate Stakeholders, plus 2 discussions

Oct 12th – SPU Asset Management Committee

Oct 20th – Seattle Design Commission

Oct 20th – Stakeholder Forum


NE 103rd St
NORTHGATE COMMONS
3rd Ave NE
5th Ave NE
OUTLET STRUCTURE
COLLECTION AREA
STAIRS
LOW FLOW CHANNEL
WET BIOSWALE
CENTRAL BRIDGE
MAINTENANCE ACCESS RAMP
SEDIMENT POOL
DIVERSION STRUCTURE #2
WATER QUALITY SWALE
MAIN PATHWAY
SITE WALLS
SW BRIDGE
CASCADE FEATURE
ERA CARE COMMUNITY
DIVERSION STRUCTURE #1
EX 60" SD
NE 100th St
N
Scale in Feet
LEGEND
PATH
UPLAND PLANTING
YEAR ROUND FLOW
STORM FLOW
SEASONAL FLOW
THORNTON CREEK WATER QUALITY CHANNEL
TERRACED FACILITY
DESIGN DEVELOPMENT
Seattle Public Utilities
PLEASE CALL
2 Working Days
BEFORE YOU DIG
1-800-424-5555

30% Design Review – Key Issues

- Landscape Design and Pedestrian Access
- Grading and Retaining Walls
- Water Quality and Channel Design
- Cost and Constructability Review

Design Team Workshop Series

Purpose
- to review technical assumptions
- develop recommendations to address review comments

Design Team:
  - Miranda Maupin, SPU, project lead
  - Tom Fawthrop, SPU, project manager
  - Masako Lo, SPU, design engineer
  - Peggy Gaynor, Gaynor Inc., concept design
  - Greg Giraldo, SvR, civil design
  - Melanie Davies, SvR, landscape design

Dec 20th - SPU Executive Steering Committee, Presented Recommendations

Cost and Constructability Review
  - Randy Barber, Olympic Associates

Project Goals and Stakeholder Advice

Project Goals

1. Improve water quality for Thornton Creek
2. Provide pleasing public open space

Stakeholder Values

- Moving water
- Aesthetics
- Safety
- Pedestrian movement
- Water quality
- Cost controls

Landscape Design & Pedestrian Access

Key Issues:

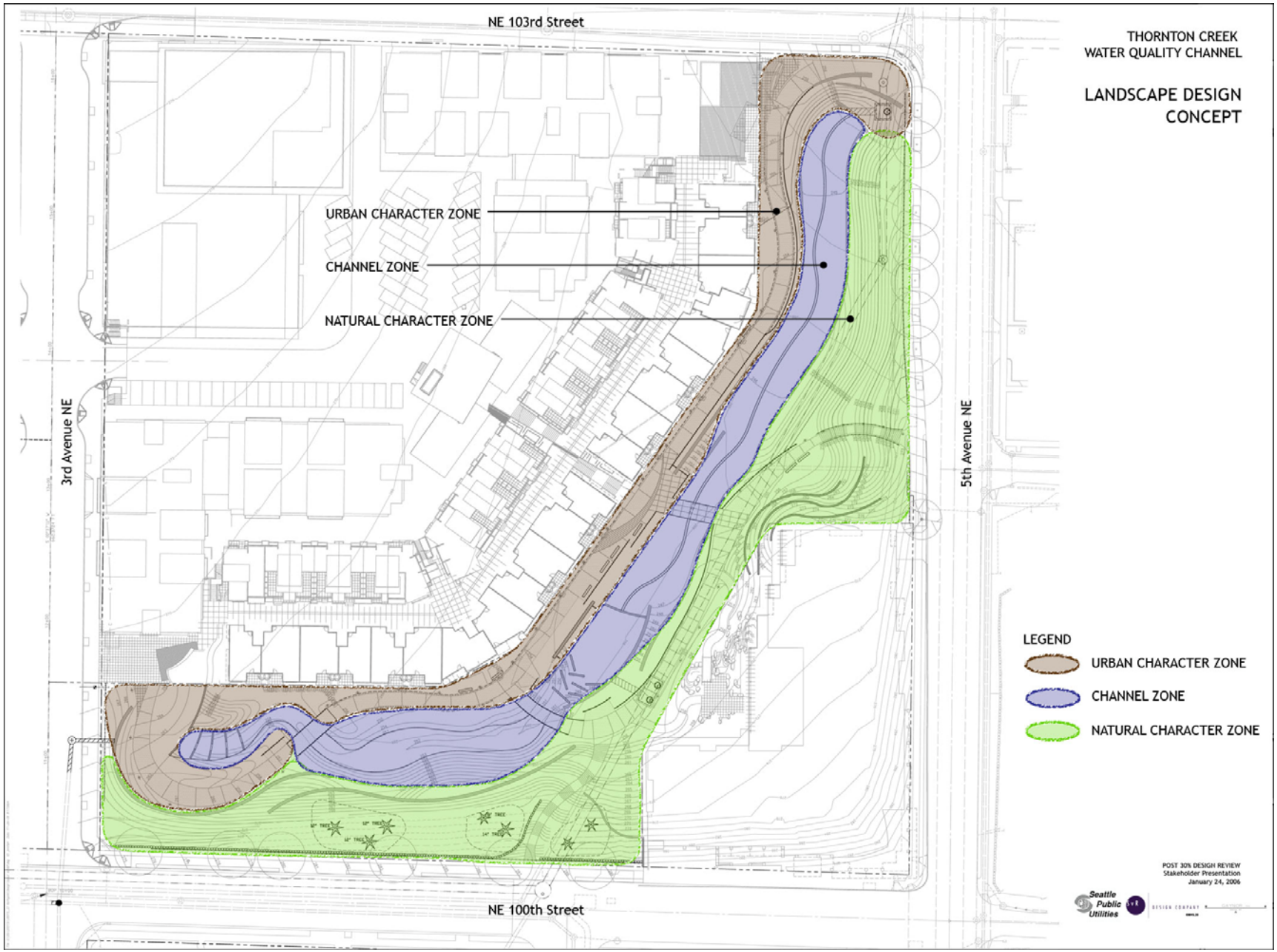
- Desire for access to site from 100th
- Enhance qualities of pedestrian experience

Landscape Design & Pedestrian Access

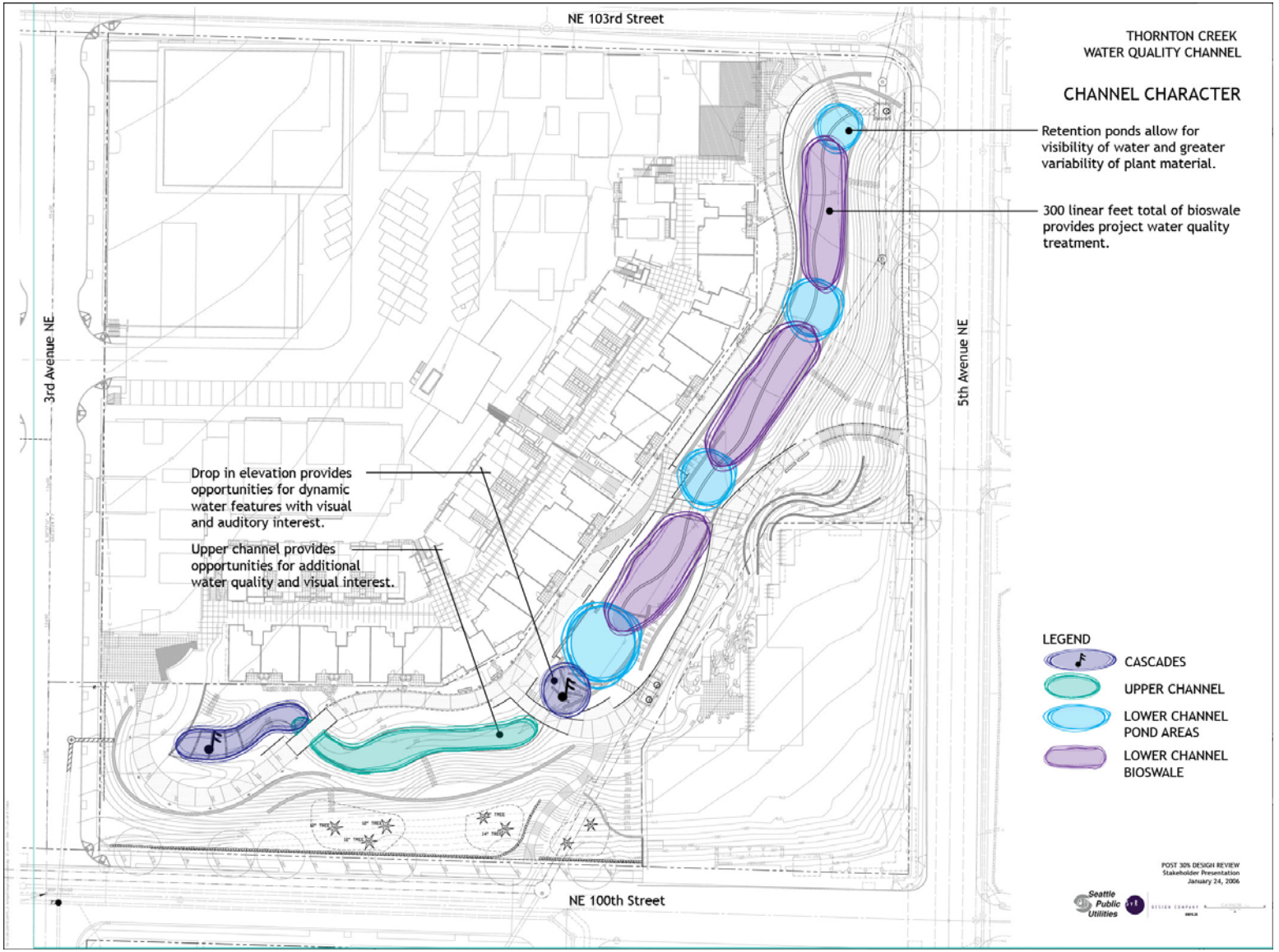
Recommendations:

- Provide stairwell from 4th and 100th into site
- Enhance pedestrian experience
  - Enhance formal urban vs. informal natural areas
  - Ensure water views and sounds
- Enhance planting design
  - Create more variability in channel through planting
  - Emphasize formal and informal areas
  - Create more open views into channel
  - Create more open views for security

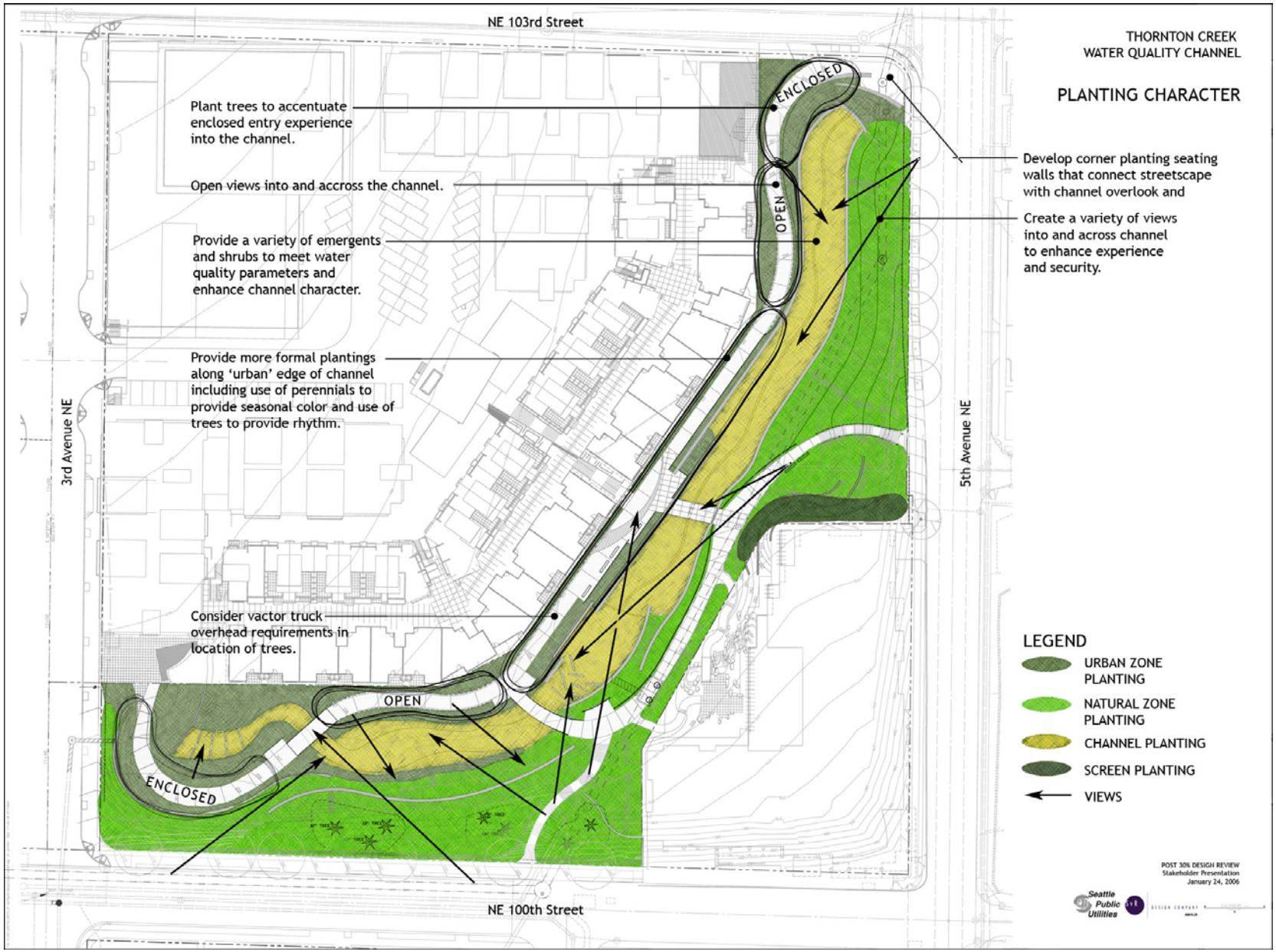
Landscape Design & Pedestrian Access



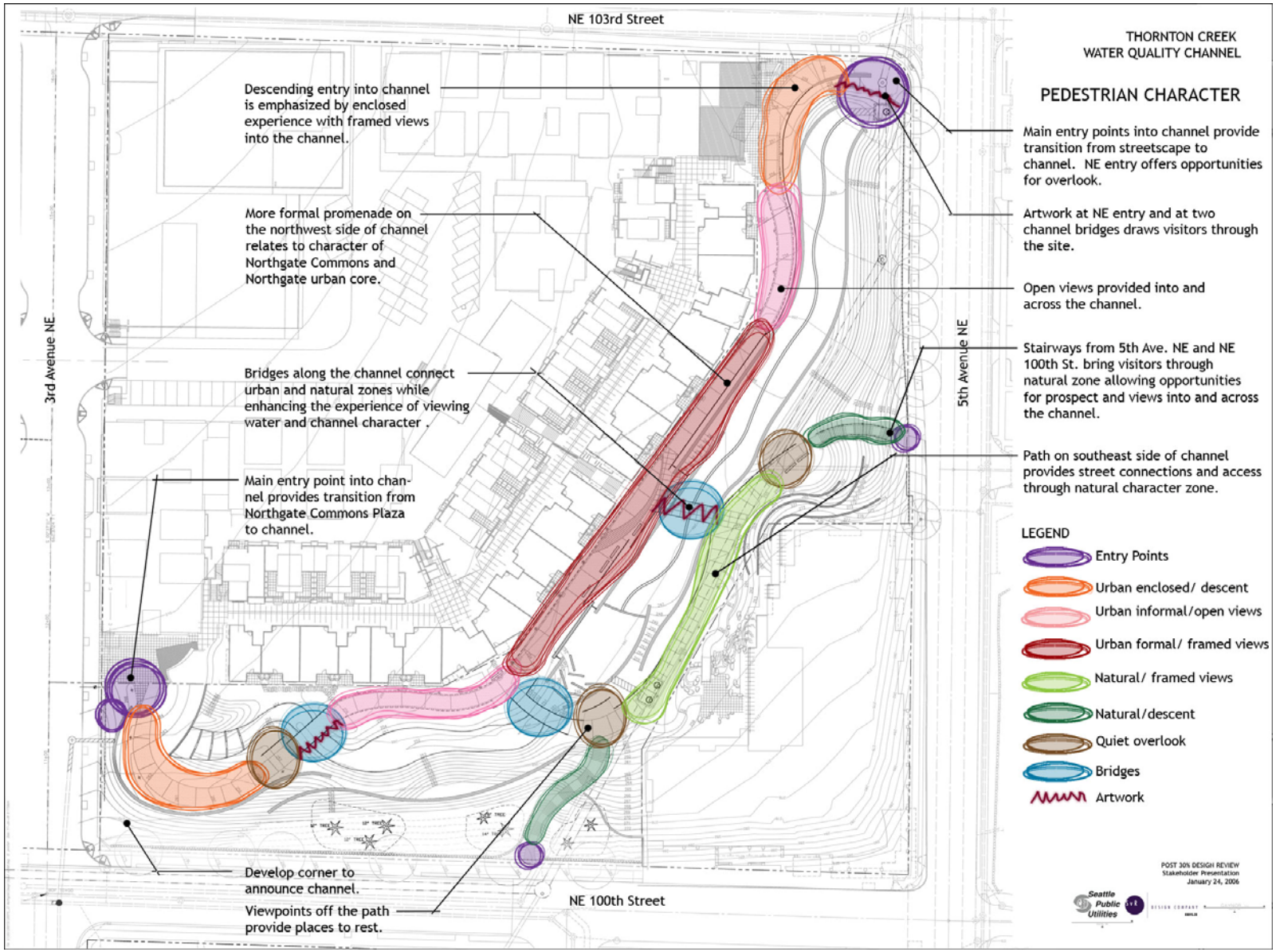
Landscape Design & Pedestrian Access



Landscape Design & Pedestrian Access



Landscape Design & Pedestrian Access



Grading and Retaining Walls

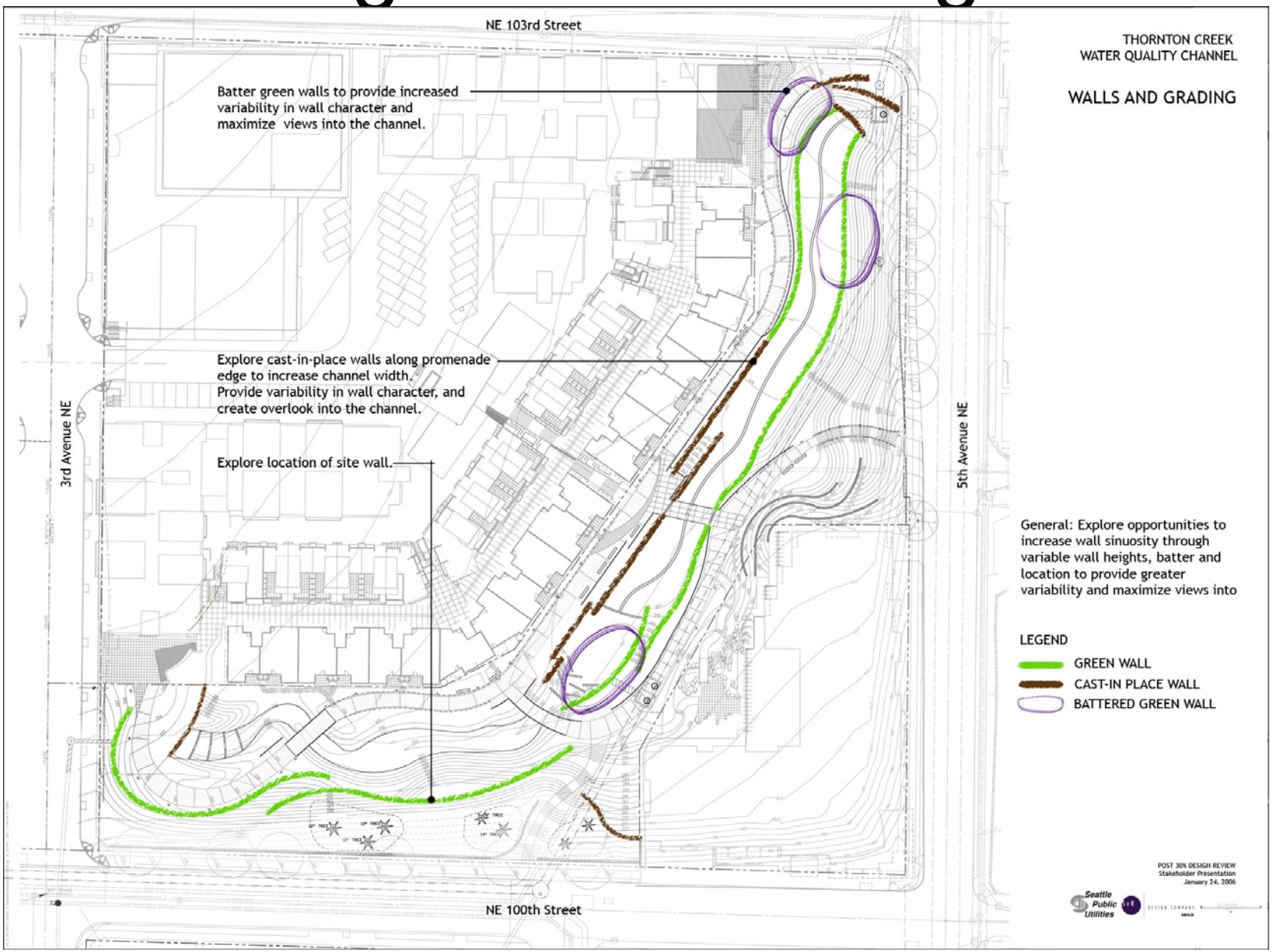
Issues:

- Increase variability in walls

Recommendations:

- Vary wall type
  - Use predominately green (MSE) walls
  - Use concrete for more formal areas to increase views to the water and create more variability in the channel
- Vary wall slope (batter) for green walls
  - Increases views to the water and variability

Grading and Retaining Walls



Water Quality and Channel Design

Issues:

- Create more variability in the channel by modifying the weir/level spreader design
- Use more natural materials for low-flow channel

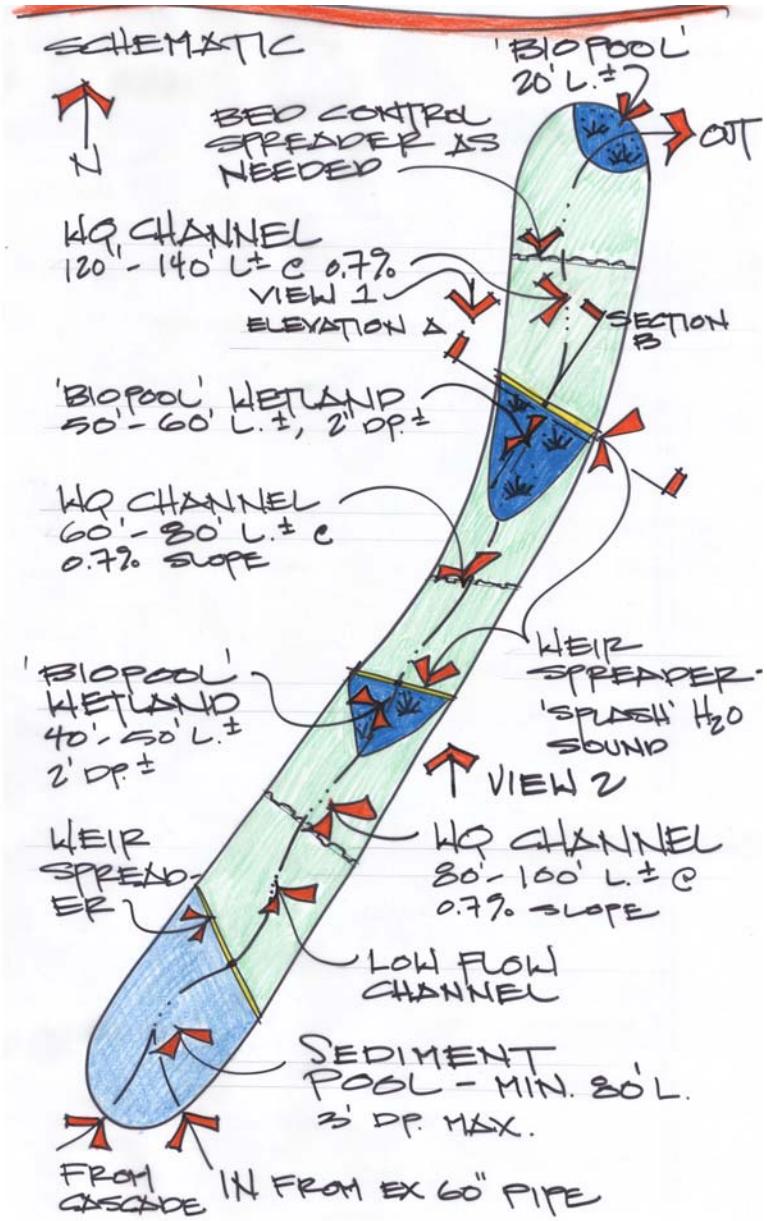
Water Quality and Channel Design

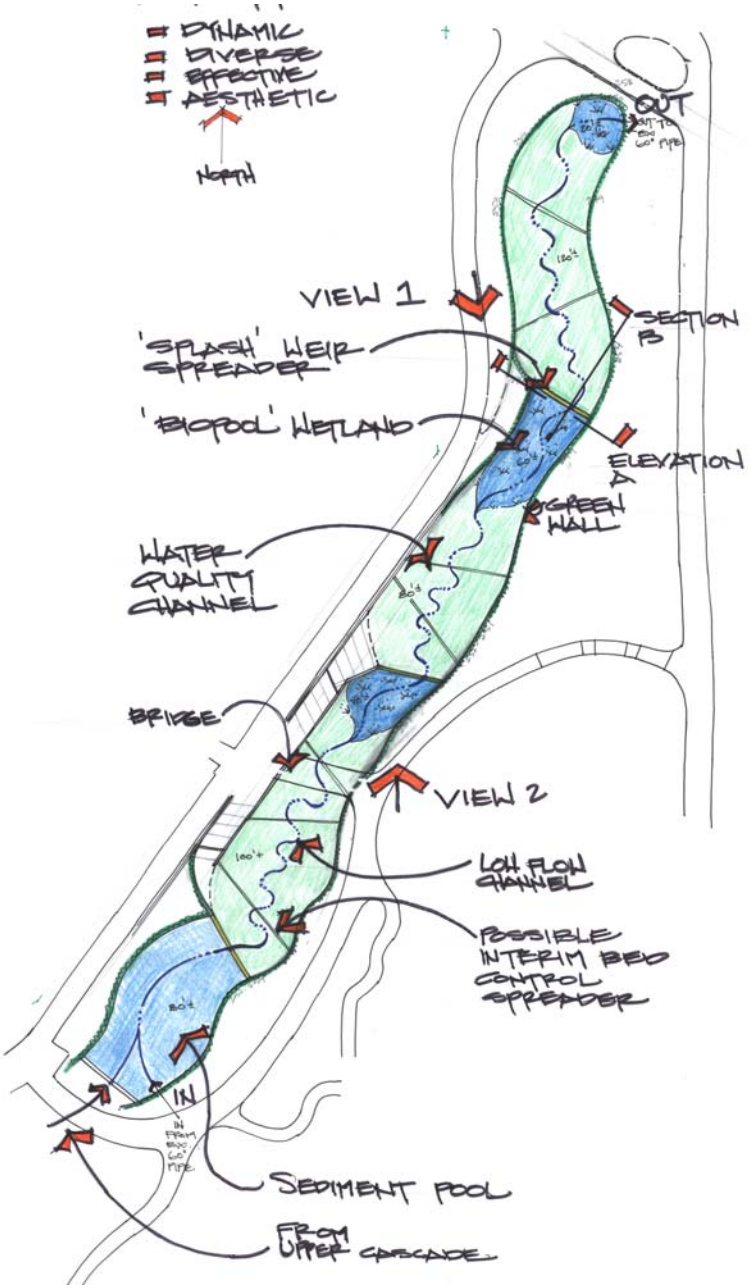
Recommendations:

- Create series of 3 “wetland weirs” that provide rhythm between ponded wetland areas and low flow channel treatment swales

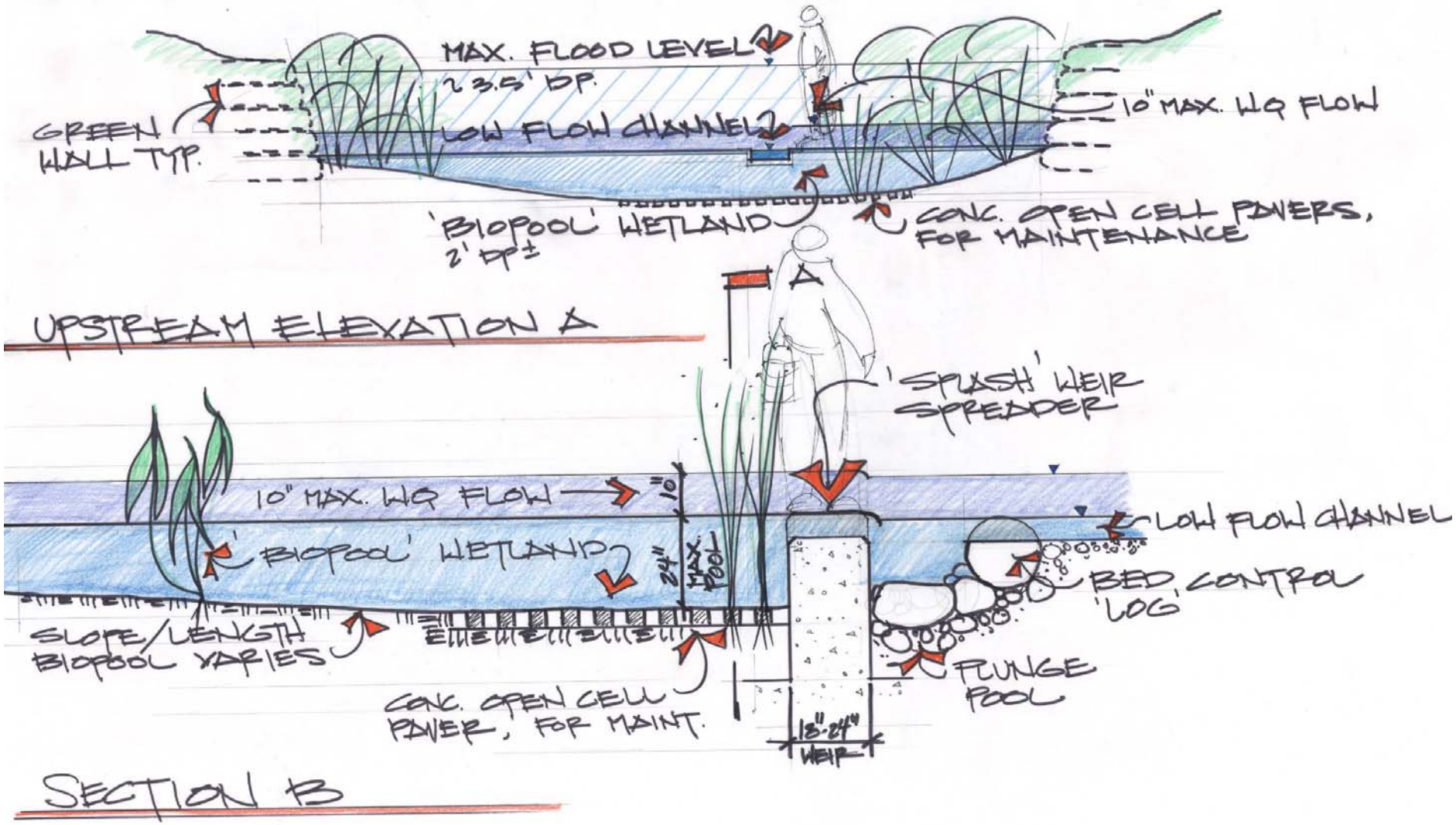
- Use plants and gravel to define the low flow channel

Water Quality and Channel Design





Water Quality and Channel Design



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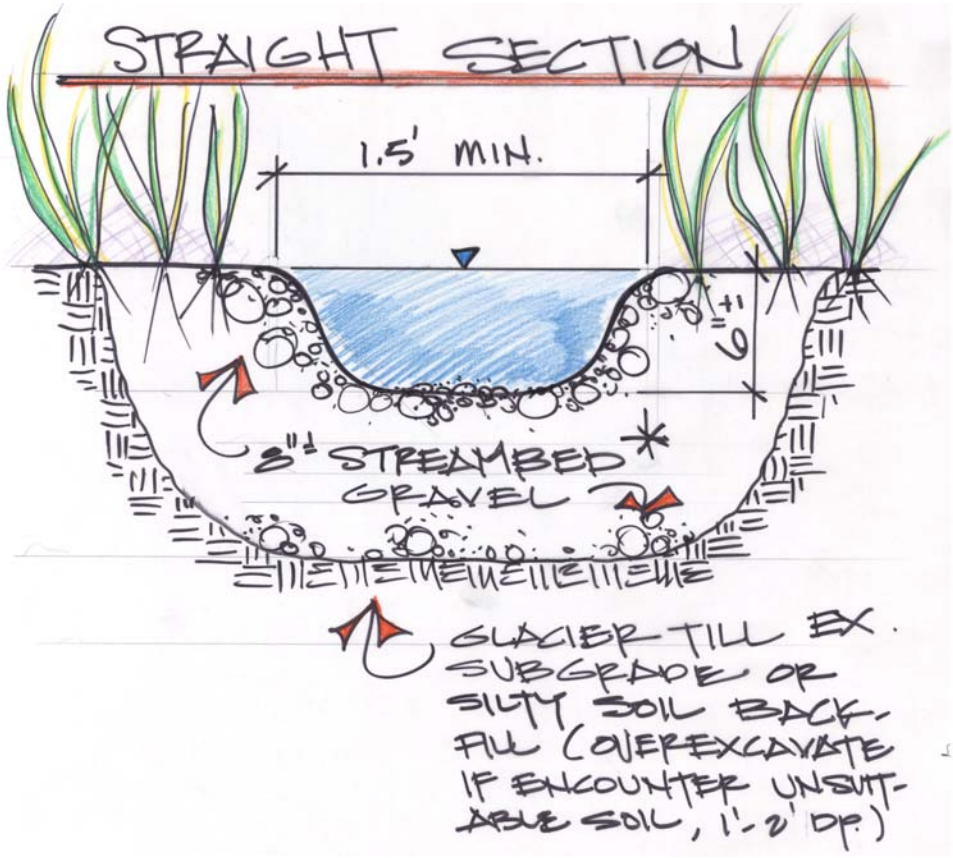

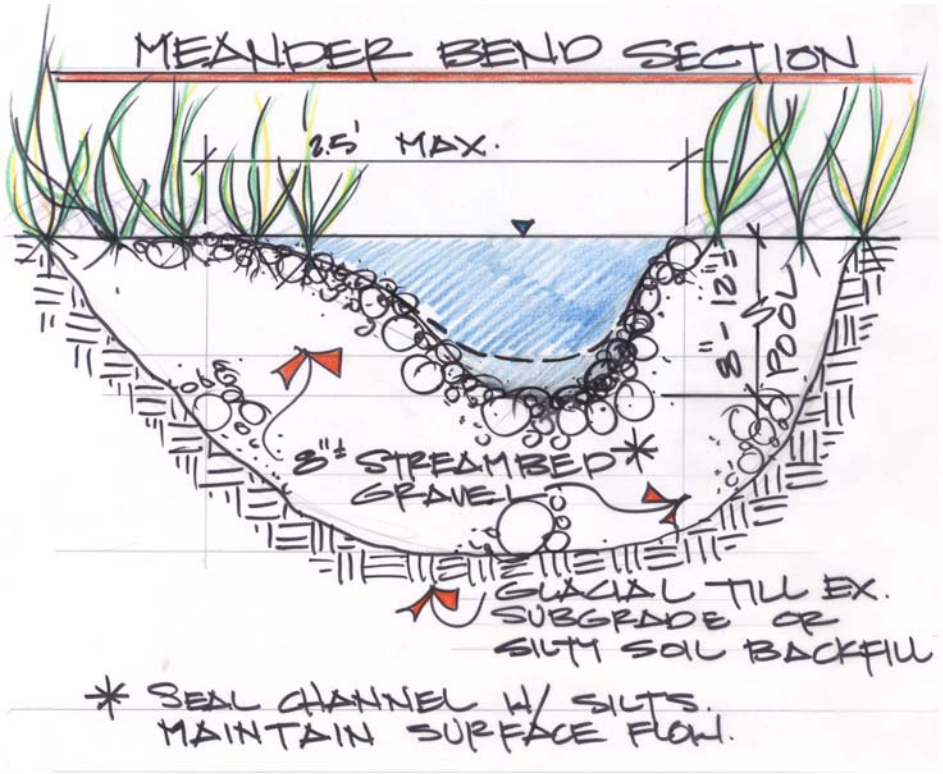

Water Quality and Channel Design

OLYMPIC ASSOCIATES COMPANY
Architecture ▪ Engineering ▪ Project Management
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Cost Constructability Review

- The job can be done
- The two phase approach makes sense
- Concur with decision to relocate the diversion weir due to cost and risk
- Costs in 4 major areas
  - Erosion control
  - Earthwork excavation and grading
  - Walls
  - Landscaping
- Not a lot of opportunity to reduce costs and maintain project goals and stakeholder values

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Recommendations

- Prioritize finalizing wall details and locations
- Prepare an updated cost estimate
- Monitor costs of excavation especially given uncertainties in the market (gas prices, etc.)
- Lock down design elements to maintain budget

Next Steps

- Continue to refine the design team recommendations in 60% Design
- Develop an updated cost estimate
- Update Stakeholders at April meeting

Project Schedule

- January 2006 – Permit application
- April 2006 - 60% Design for Stakeholders
- June 2006 - Earthwork Construction
- April 2007 - Start Channel Construction
- November 2007 - Substantial Completion
- April 2008 - End Construction

Thornton Creek Water Quality Channel

Q&A Discussion

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